

# P-Channel MOSFET Transistor

## **2SJ55 / J55**

180V / 8A

# DATASHEET

OEM – Hitachi

Source: Hitachi Databook Power Mosfet Data 4/83

# 2SJ55, 2SJ56

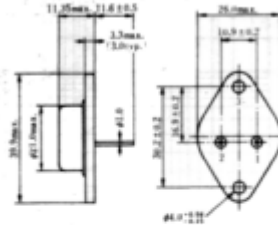
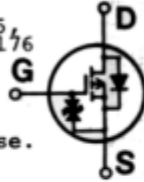
## SILICON P-CHANNEL MOS FET

LOW FREQUENCY POWER AMPLIFIER

Complementary Pair with 2SK175,  
2SK176

Features;

- High Power Gain.
- Excellent Frequency Response.
- High Speed Switching.
- Wide Area of Safe Operation.
- Enhancement-Mode.
- Good Complementary Characteristics.
- Equipped with Gate Protection Diodes.



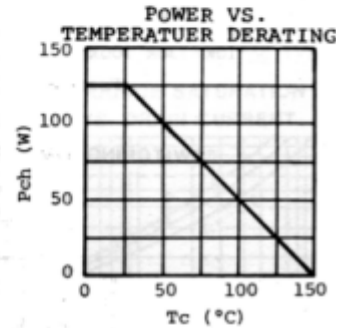
(Dimensions in mm)  
(JEDEC TO-3)

1. Gate
2. Drain
3. Source (Case)

### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	Rating		Unit
		J55	J56	
Drain-Source Voltage	V <sub>DSX</sub>	-180	-200	V
Gate-Source Voltage	V <sub>GSS</sub>	±20		V
Drain Current	I <sub>D</sub>	-8		A
Body-Drain Diode Reverse Drain Current	I <sub>DR</sub>	-8		A
Channel Dissipation	P <sub>ch</sub> *	125		W
Channel Temperature	T <sub>ch</sub>	150		°C
Storage Temperature	T <sub>stg</sub>	-55~+150		°C

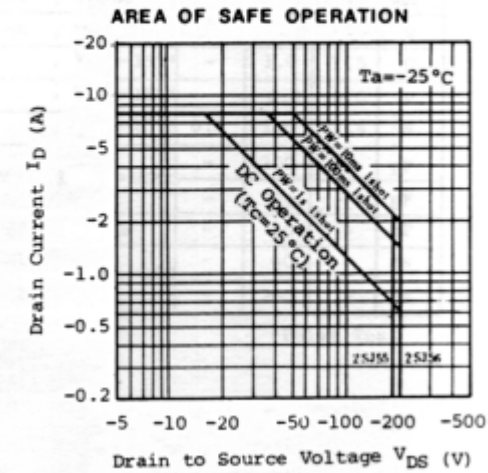
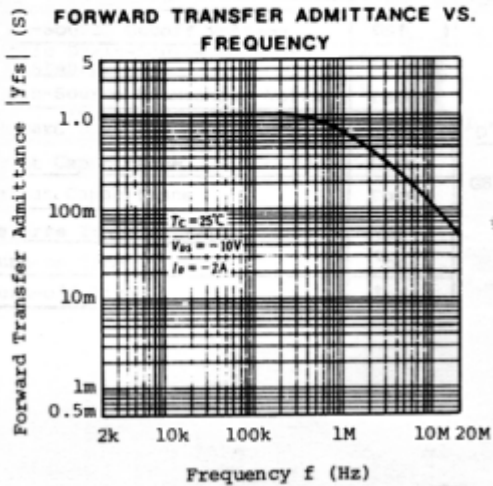
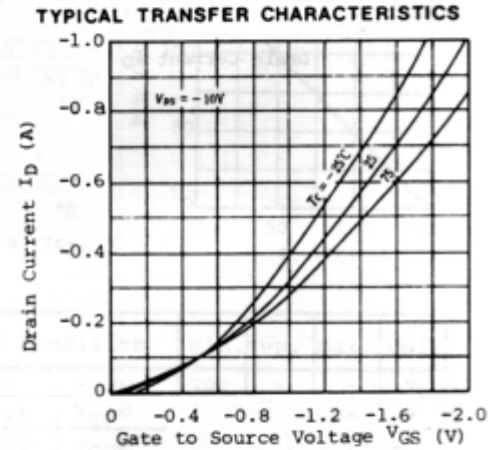
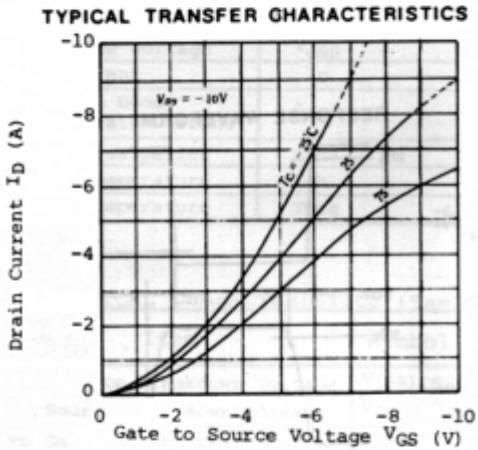
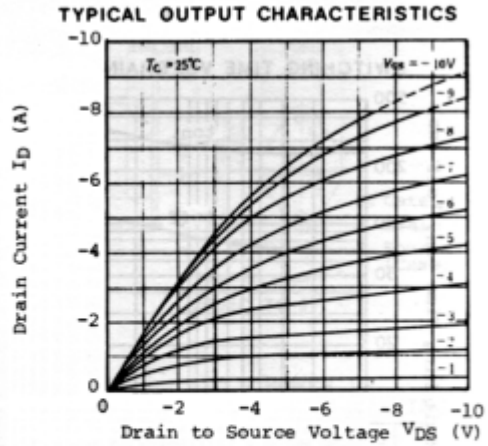
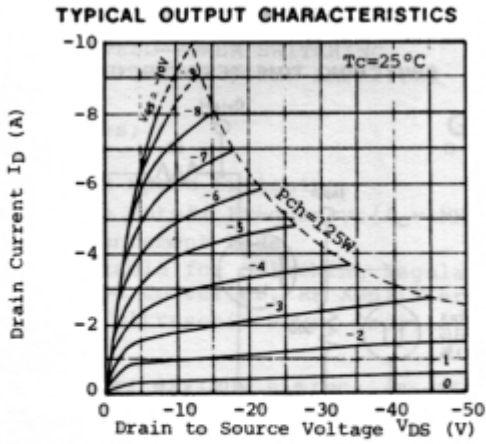
\*Value at Tc=25°C



### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Drain-Source Breakdown Voltage	J55	I <sub>D</sub> =-10mA, V <sub>GS</sub> =10V	-180	-	-	V
	J56		-200	-	-	V
Gate-Source Breakdown Voltage	V(BR)GSS	I <sub>G</sub> =±100µA, V <sub>DS</sub> =0	±20	-	-	V
Gate-Source Cutoff Voltage	V <sub>GS(off)</sub>	I <sub>D</sub> =-100mA, V <sub>DS</sub> =-10V	-0.15	-	-1.45	V
Drain-Source Saturation Voltage	V <sub>DS(sat)</sub>	I <sub>D</sub> =-8A, V <sub>GD</sub> =0*	-	-	-12	V
Forward Transfer Admittance	Y <sub>fs</sub>	I <sub>D</sub> =-3A, V <sub>DS</sub> =-10V*	0.7	1.0	1.4	S
Input Capacitance	C <sub>iss</sub>	V <sub>GS</sub> =5V, V <sub>DS</sub> =-10V, f=1MHz	-	1200	-	pF
Output Capacitance	C <sub>oss</sub>		-	700	-	pF
Reverse Transfer Capacitance	C <sub>rss</sub>		-	60	-	pF
Turn-on Time	t <sub>on</sub>	V <sub>DD</sub> =-30V, I <sub>D</sub> =-4A	-	320	-	ns
Turn-off Time	t <sub>off</sub>		-	120	-	ns

\*Pulse Test



2SJ55.2SJ56

